Conservative Management of a Complete Rupture of the Long Head of the Biceps:

A Case Report.
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Background
- The long head of the biceps (LHB) stabilizes the shoulder by reducing anteroposterior and superior inferior translation of the humeral head in the glenoid fossa.1,2
- A tear of the LHB most commonly occurs when the biceps is suddenly loaded against flexion and supination of the elbow.3
- Surgical repair of the LHB has seen 94% satisfaction rates, but with complications.4
- Fifty-six percent of patients who initially chose conservative methods ultimately choose surgery.5
- There is currently a lack of evidence supporting conservative management of a complete rupture of the LHB.

Purpose
The purpose of this case study was to assess conservative management of a complete rupture of the long head of the biceps over a six-week period.

Case Description
- 51-year-old male with a complete tear of the LHB.
- Tried to brace a fall by grabbing ahold of his truck, tearing the LHB.
- Demanding job as an electrician which required a lot of heavy lifting, overhead work, and was relatively strenuous.
- Waited two and a half months to see a doctor after the initial injury.
- Due to minimal physical restriction and the chronic nature of the tear, the surgeon recommended physical therapy.

Timeline
- Complete Rupture of the Long Head of the Biceps
- Treatment #1: MET, Manual Therapy, Progress Therapeutic Exercise
- Treatment #2: MET, Manual Therapy, Progress Therapeutic Exercise
- Treatment #3: MET, Manual Therapy, Progress Therapeutic Exercise
- Treatment #4: MET, Manual Therapy, Progress Therapeutic Exercise
- Treatment #5: MET, Manual Therapy, Progress Therapeutic Exercise

Discharge
- Improvement in ROM & VAS QuickDASH: 9%

Initial Evaluation to Discharge
- AROM forward flexion 153° to 168°
- AROM Internal Rotation 38° to 51°
- Tenderness in R infraspinatus Decreased
- Visual Analog Scale after a day at work 7/10 to 2/10

Conclusion
Conservative management of a rupture of the long head of the biceps was found to be beneficial for this patient. The improvement was demonstrated by the patient’s increase in range of motion, decrease in tenderness with palpation, and decrease in impairment measured by the QuickDASH score.

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References
6. Popeye Deformity
7. Sleeper Stretch
8. Rotator Cuff Strengthening

Intervention
- Manual Therapy
  - Muscle Energy Technique (MET) – Internal Rotation Soft tissue manipulation
- Therapeutic Exercise
  - Internal rotation stretch
  - Scapular strengthening
  - Rotator cuff strengthening
- Home Exercise Program
  - Sleeper stretch
  - Internal and External strengthening with theraband

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